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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/736,935	12/16/2003	Timothy Paul Bock	4-43-7	5534

7590
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12/22/2006

EXAMINER

AKANBI, ISIAKA O

ART UNIT

PAPER NUMBER

2877

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	12/22/2006	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/736,935

Applicant(s)

BOCK ET AL.

Examiner

Isiaka O. Akanbi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 October 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) 2 and 7-13 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-6 and 14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 July 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 31 October 2006 has been entered. Claims 2 and 7-13 are cancelled.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 3-5 and 14 are rejected under 35 U.S.C. 102(e) as being anticipated by Mehrl et al. (7,095,494 B2).

As regard to claim 1, Mehrl discloses an arrangement for controlling the alignment direction of a light beam comprising of the following:

an active light source (105) for emitting a beam of light (115), a passive receiver of light (120), a MEMS mirror (110) for receiving said beam of light from said active source and for reflecting said beam of light toward said passive receiver of light wherein said MEMS mirror is electrically controlled(150) to change its deflection profile until alignment is achieved between the active light source and the passive receiver of light (col. 10, line 58-60)(col. 11, line 28-37),

a monitoring photodiode(125) and a beam splitter (fig. 2) associated with the MEMS mirror to enable said MEMS mirror to split the beam emitted from said active light source into a first beam (205) and a second beam (212) wherein said first beam is directed toward the

passive receiver of light and said second beam is directed toward said monitoring photodiode, wherein a power measurement of said second beam is converted to an electrical signal by the monitoring photodiode and used to electrically change the deflection profile of said MEMS mirror (figs. 1, 1A, and 2)(col. 9, line 30-col. 11, line 1-10).

As to claim 3, Mehrl discloses the beam splitter forms the first and second light beams to comprise a predetermined power ratio (fig. 2)(col. 9, line 12-30).

As to claim 4, Mehrl discloses monitoring photodiode (125) is operably connected to the active light source and to the MEMS mirror whereby a change in the strength of the first and second light beams causes the monitoring photodiode to generate the electrical signal used to change the deflection profile of the MEMS mirror (fig. 4)(col. 9, line 63-col. 10, line 1-25)(col. 10, line 33-43).

As to claim 5, Mehrl discloses a laser active light source (col. 2, line 50-53).

As regard to claim 14, Mehrl discloses an arrangement for continuously controlling the amount of light propagating through a single passive optical receiver comprising of the following;

a passive optical device (120) for propagating optical signals in both a transmitting and a receiving direction, an active light source (105); an alignment monitoring photodiode (125)(col. 9, line 34-38), a first and a second MEMS mirror (col. 9, line 47-48), said first MEMS mirror for reflecting a beam of light (205) from said active light source to said passive device and said second MEMS mirror for reflecting a beam of light (212) from said passive optical device to said monitoring photodiode; and a control circuit disposed between the alignment monitoring photodiode and said first and second MEMS mirrors (figs. 1 and 2)(col. 9, line 7-45), said control circuit (160) responding to changes in optical power received by said alignment monitoring photodiode and generating alignment correction signals to said first and second MEMS mirrors to modify the deflection profile of said first/and second MEMS mirrors and provide optical realignment between the passive optical device and the active light source (col. 10, line 35-60).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

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the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mehrl et al. (7,095,494 B2) in view of Street et al. (6,760,505 B1).

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over of Street. The reference of Mehrl teaches of the features of claim 6, comprising a passive receiver of light (120). The reference of Mehrl is silent regarding an optical fiber passive receiver of light. The reference of Street teaches of passive receiver of light (160)(fig. 1). It would have been obvious to one having ordinary skill in the art at the time of invention to provide an optical fiber passive receiver of light for the purpose of transmitting signal to a remote system.

Additional Prior Art

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The references listed in the attached form PTO-892 teach of other prior art alignment devices that may anticipate or obviate the claims of the applicant's invention.

Conclusion

Fax/Telephone Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Isiaka Akanbi whose telephone number is (571) 272-8658. The examiner can normally be reached on 8:00 a.m. - 4:30 p.m.

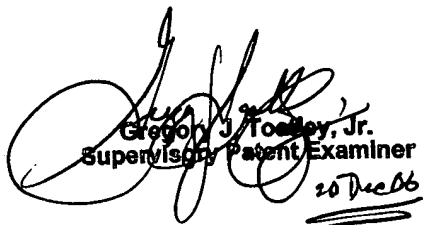
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory J. Toatley Jr. can be reached on (571) 272-2059. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Isiaka Akanbi

November 22, 2006


Gregory J. Tooley, Jr.
Supervisory Patent Examiner
20 Dec 06